

## Abstract

A layer system is described including a silicon layer (11) and a passivation layer (17) which is applied at least regionally to the silicon layer's surface, the passivation layer (17) having a first, at least largely inorganic partial layer (14) and a second partial layer (15), the second 5 partial layer (15) being made of an organic compound including silicon or containing such a material. In particular, the second partial layer (15) is structured in the form of a "self-assembled monolayer." Furthermore, a method is described for creating a passivation layer (17) on a silicon layer (11), a first, inorganic partial layer (14) being created on the silicon layer (11) and a second partial layer (15), containing an organic compound including silicon 10 or being made thereof, being created at least in certain areas on the first partial layer (14). Both partial layers form the passivation layer (17). The described layer system or the described method is particularly suited for creating self-supporting structures in silicon.

Figure 1